



SKILLSHEET 7.5

Solving linear equations

When solving an equation, the same operations must be performed on both sides of it.

WORKED EXAMPLE

Solve each of the following equations.

a $2x + 4 = 0$ **b** $3x - 1 = 0$

THINK

- a**
- 1 Write the equation.
 - 2 Subtract 4 from both sides of the equation first.
 - 3 Divide both sides by 2 to find the value of x .
- b**
- 1 Write the equation.
 - 2 Add 1 to both sides of the equation.
 - 3 Divide both sides of the equation by 3 to find the value of x .

WRITE

a $2x + 4 = 0$

$$2x + 4 - 4 = 0 - 4$$
$$2x = -4$$
$$\frac{2x}{2} = \frac{-4}{2}$$
$$x = -2$$

b $3x - 1 = 0$

$$3x - 1 + 1 = 0 + 1$$
$$3x = 1$$
$$\frac{3x}{3} = \frac{1}{3}$$
$$x = \frac{1}{3}$$

Try these

Solve each of the following equations.

1 $x + 4 = 0$

$$x + 4 - \dots = 0 - \dots$$

$$x = \dots$$

2 $x - 5 = 0$

$$x - 5 \dots = 0 \dots$$

$$x = \dots$$

3 $2x + 5 = 0$

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4 $4x + 3 = 0$

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5 $2x + 1 = 0$

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6 $2x - 6 = 0$

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7 $3x - 9 = 0$

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8 $5x + 1.5 = 0$

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9 $2x - \frac{1}{3} = 0$

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SKILLSHEET — ANSWERS

SKILLSHEET 7.5

Solving linear equations

1 $x = -4$

3 $x = -\frac{5}{2}$

5 $x = -\frac{1}{2}$

7 $x = 3$

9 $x = \frac{1}{6}$

2 $x = 5$

4 $x = -\frac{3}{4}$

6 $x = 3$

8 $x = -0.3$